

EE/CprE/SE 491 WEEKLY REPORT 2

January 28th - February 10th

Group number: 35

Project title: IINSPIRE STEM Survey Visualization Tool

Client &/Advisor: Dr. Diane Rover & University of Iowa

Team Members/Role:

Abe Scheideman - Back-end

Thomas Nunez - back-end

Kaitlin Hansen - front-end

Lydia McCleary - back-end

Nathan Frank - front-end

Jimmy Driskell - front-end

○ **Weekly Summary**

The overall objective of this week was to finish setting up our development environments and lay the foundation for the project. On the backend, this consisted of us configuring our AWS resources and local environments. This included setting up the database schema, configuring a Relational Database Service (RDS) instance, an Elastic Compute Cloud (EC2) instance, and connecting these services together. On the frontend, the team met with a graduate student from the University of Iowa to gain insight into the user interface design and the client's vision for it.

○ **Past week accomplishments**

- Abe Scheideman: Worked on setting up my development environment and exploring AWS EC2 and Amplify web services. We decided as a back end team to move forward with hosting our database on an EC2 instance in order to have more direct control over the availability of our resources.
- Thomas Nunez: Refamiliarized myself with MySQL, set up some practice work, and created a database that can hold our user information such as ID, email, region, etc.. Looked into password hashing and security to see what the best practices for storing and retrieving user information are.
- Kaitlin Hansen: Performed necessary installations for front end development. Met with grad student liaison to discuss expectations regarding the front end appearance and UI/UX. Looked into methods for reusing CSS and other style components created by the grad student in Figma designs. Refamiliarized self with React and other front end tools through a practice app.

- Lydia McCleary: Set up AWS account credentials upon receiving access from ETG. Created a MySQL RDS instance and connected it to my local environment. Created the database schema (users, survey questions, responses tables). Made adjustments to RDS config and security group settings to ensure local to RDS connectivity for all team members.
- Nathan Frank: Worked to set up a React project with multiple environments and how to use React navigation for the different web pages. Also began working on how to deploy the front end to AWS Amplify. Started working on the login flow by creating the screen and learning more about JWT authentication on the front-end and back-end
- Jimmy Driskell: Installed the tools necessary for the front end, as well as tested them out by creating a basic webpage. These tools primarily include React and npm, but I also freshened up on CSS as well. Also met with our grad student in order to achieve a better understanding of what's expected on the front-end side of things.

○ **Pending issues**

N/A

○ **Individual contributions**

<u>NAME</u>	<u>Individual Contributions</u> <i>(Quick list of contributions. This should be short.)</i>	<u>Hours this week</u>	<u>HOURS cumulative</u>
Lydia McCleary	AWS account creation, RDS instance creation/configuration, created DB schema (users, survey questions, and responses tables + relationships).	6	6
Nathan Frank	Frontend environment setup and beginning work on navigation and authentication	7	7
Kaitlin Hansen	Figma to code conversion research, grad student communications, front end installations	6	6
Jimmy Driskell	Communicating and setting up meeting times with the University of Iowa. Installing and practicing with the necessary tools.	6	6
Thomas Nunez	Worked on setting up an EC2 instance with the proper permissions to host an apache web server to ensure we could utilize AWS resources. Also practiced with the database that Lydia set up and created a sample table that could be used to store account information. Also worked on getting all the software required downloaded on my	6	6

	machine.		
Abe Scheideman	Locally accessed Amazon resources including EC2 and RDS. Experimented with Amplify and hosting a react app. Also connected MySQL Workbench to our RDS on our EC2 and experimented with locally running a Node.js application using Express for handling HTTPS requests and Pug.js as a framework for HTML content.	6	6

○ **Comments and extended discussion**

N/A

○ **Plans for the upcoming week**

- Thomas Nunez: Next week I plan to implement hashing into the database to ensure that when user information is transferred over the internet there is no fear of an adversary sniffing traffic or stealing user data.
- Abe Scheideman: Setting up a pathway to pass data from the front end to the backend using Node.js will be what I look into. I will have some tests that can be run in Postman to confirm the endpoints are working.
- Lydia McCleary: Begin developing functionality for our application's features utilizing Node.js and the database. My main goal is to enable basic features, such as account creation, to work towards having an end to end demo with the frontend where a user can create an account and login.
- Kaitlin Hansen: Accessing the actual React App that the front end team will be using. Start creating screens and components for the log in, and other early stage user interfaces.
- Nathan Frank: Continue working on the login flow and start work on the other pages of the application.
- Jimmy Driskell: Make progress with the front end side on the login screen and potentially moving on to the register screen as well.

○ **Summary of weekly advisor meeting**

Aside from updating our advisor with the work we put in and were going to do next, the main item discussed was figuring out when to meet with our client. We established that since we're going to be wanting constant feedback, it's important to not only meet with our client, but also the rest of the students at the University of Iowa helping us with the project. We also reviewed our current development plan including what technologies we're using, our methodology (2 week agile sprints), and our development objectives for the two week period.